

# **City Of Tupelo Vacancy Announcement External Applicants**

**Position:** Traffic Signal Technician

**Department:** Water and Light

**Shift:** 8-Hour Shifts with Some Nights and Weekends, Subject to call outs

**Salary:**

**Job Posted:** 04/20/2016

**Closing Date:** 04/30/2016

**Duties:** See Attached Job Description

**Qualifications:** See Attached Job Description



## **Equal Opportunity Employer**

An equal opportunity employer, the City of Tupelo adheres to all Federal laws, regulations, and orders prohibiting discrimination based upon age, handicap or disability, race, religion, sex, marital status, national origin and veteran status.



# City of Tupelo

## Job Description

**JOB TITLE: Traffic Signal Technician**

**EXEMPT: (Y/N):** No

**DATE OF REVISION:** 8APR16

**LOCATION:** Light and Water Building

**SHIFT:** 8 hours, some nights and weekends, subject to call outs

**DEPARTMENT:** Water and Light

**SUPERVISOR:** Electric Superintendent

**SUMMARY:** This is skilled technical work in the implementation, installation and maintenance of all types of communications and electronic equipment related to computerized traffic control systems, electrical and electronic work in the traffic signal construction and maintenance activities for the City of Tupelo Advanced Transportation Management System (ATMS) and Intelligent Transportation Systems (ITS). Incumbents receive work objectives and deadlines for assignments from the supervisor and independently perform the work referring any unusual situation to the supervisor for assistance. Duties may include answering direct email and telephone inquiries from the public, other agencies, and media, legal and public officials concerning traffic operations. Duties may also include responsibility for performing lead worker duties to subordinates engaged in similar activities. This employee may be required to work emergency management operations beyond the normal work day. Work is performed under the general direction and supervision of the city of Tupelo Electric Department Manager.

**ESSENTIAL DUTIES AND RESPONSIBILITIES:** Include the following. Other duties may be assigned.

*Construction:* Performs all work required in the installation, maintenance, repair or modification of a variety of electrical traffic control devices, including flasher/sign assemblies, poles, cabinets and bases, signal controllers, communication units, preemption devices, video detection and all other electrical field equipment, conduit, inductive loop detectors messenger cable, fiber optic or other control or interconnect cable, optical signal units and related hardware, cable and mast arms, poles, pole or ground mounted control equipment and cabinets, underground conduit, cable and vehicle detectors, underground or overhead interconnect and communication equipment, ground or shoulder mounted optical assemblies and control and overhead signs. Repairs damaged or faulty electrical or structural components in the field. Assists with house moves. Performs related work as required.

*Traffic Signal/ITS Maintenance:* Responds to trouble calls and repairs damaged or faulty electronic equipment in the field or in the shop, as required. Tests electronic equipment prior to



installation or as a part of the repair procedure. Investigates complaints pertaining to faulty traffic signals/ITS. Performs preventative maintenance. Maintains traffic signal/ITS equipment on a scheduled and on-call basis. Plans, installs and maintains traffic signal/ITS wiring and cabling systems to support a traffic signal/ITS communications network. Performs installation and maintenance of computerized traffic control systems equipment including personal computer (PC) signal controller, videos, modems, and other miscellaneous and user devices. Maintains accurate records of wiring and cable assignments and end user device inventories. Performs miscellaneous traffic signal/ITS maintenance and construction assignments. Performs related work as required. Conducts random intersection inspection to verify proper operation of equipment.

*Upon implementation and installation of the City of Tupelo Advanced Transportation Management System (ATMS) and Intelligent Transportation Systems (ITS) the employee may be called upon to supervise the installation, maintenance and repair of all types of electrical and electronic traffic control and communications equipment; assist in directing field crews performing on-call and preventative maintenance on field equipment; and assist traffic engineers with reviewing of plans, specifications and signal operating plans.*

*Traffic Management Center (TMC):* When the TMC is implemented the employee may be called upon for the following increased supervisory functions: Monitors and operates the city's computerized advanced transportation management system under the guidance of higher level technicians and engineers. Conducts traffic management related observations to evaluate and improve traffic operations and safety. Operates all equipment and software in the TMC. Assists higher level technicians and engineers in the implementation and coordination of field activities related to traffic management. Monitors and operates the city's CCTV system. Monitors the status of the fiber optic communications systems. Dispatches field technicians to signal malfunctions, camera malfunctions, fiber optic and copper communications malfunctions, incidents and special events. Performs real-time updates to transportation information systems including generation of recorded messages for broadcast on radio, assists with web site updates, variable message sign control and operation, kiosk message maintenance and other intelligent transportation system features to operate the ATMS. Assists higher level technicians and engineers with conducting tours and demonstrations to guests (e.g. media, public officials, students, others). Assists in developing traffic management related computer programs and databases. Maintains neat and accurate TMC documentation, signal files, and data entry into ATMS. Work assignments are generally more complex than for technicians in construction or maintenance. Insures proper operation and programming of the Advanced Transportation Management System (ATMS) and all related elements including: video monitoring equipment, fiber optics plant hardware and documentation, traveler advisory radio messages, changeable message signs and driver information services on the City web site. Adjusts ATMS based on real-time conditions of the roadways. Maintains accurate and complete system activity records. Communicates with engineers, contractors, consultants, utility companies, general public, public agency personnel, and other related county and state agencies to exchange information, provide advice and/or guidance. Assists traffic engineering staff with review of plans, specifications and



signal operating plans. Acknowledges system failures and takes action to correct malfunctions. Continuously evaluates system performance and performs traffic delay studies as necessary. Performs related duties as required.

## **QUALIFICATIONS REQUIREMENTS:**

### **Minimum Education and/or Experience:**

*Construction:* Possession of a high school diploma or an equivalent recognized certificate and four years of experience that includes traffic signal construction or electrical construction.

*Traffic Signal/ITS Maintenance:* Possession of a high school diploma or an equivalent recognized certificate at least two years of electronics courses beyond the high school level, and two years of technical electronics experience; or an equivalent combination of education and experience. (Experience in the installation and splicing of communications cable and the installation of end user devices may be considered equivalent.)

*Traffic Management Center:* Possession of an associate's degree and one year of work experience that includes traffic management center operations and/or the application of the principles of traffic engineering and mathematics to the solution of traffic management problems involving traffic control, capacity, vehicular speed, and related matters; or an equivalent combination of education and experience.

### **Certificates, Licenses, Registrations:**

Valid driver's license from the State of Mississippi.

Employees assigned to construction are required to obtain an International Municipal Signal Association (MSA) level II traffic signal technician certification or journeyman's electrician license within one year of appointment as a condition of continued employment.

Employees assigned to construction or maintenance must obtain The Mississippi Department of Transportation Intermediate Maintenance of Traffic Certification within 6 months of initial employment and maintain the certification as a condition of continued employment.

*Note:* Preference may be given to applicants possessing an International Municipal Signal Association (MSA) Level 1 Certification.

### **Language Skills:**

Ability to read, analyze and interpret common scientific and technical journal, financial reports and legal documents. Ability to present information to top management, public groups and/or boards or directors as well as governing bodies.



**Mathematical Skills:**

Ability to perform basic mathematical calculations (i.e. addition, subtraction, multiplication and division) as well as perform and interpret advanced mathematical calculations.

**Reasoning Ability:**

Ability to apply principles of logical or scientific thinking in routine and non-routine functions or operation, maintenance and construction of the traffic lighting and electric utility installations.

**Specific Knowledge and Skills:**

Knowledge of telecommunications industry practices and standards, National Electrical Code (NEC) communications terms and technologies. Knowledge of telecommunications systems and associated and/or end user devices. Knowledge of standard practices, tools and terminology of the electrical and/or electronics trades. Knowledge of the City's electrical code. Knowledge of basic electric and/or electronic theory. Knowledge of recommended safety practices of the trade. Knowledge of the operation of modern traffic signal control and communication equipment. Knowledge of the City's street system. Knowledge of the operation of a variety of electrical construction and specialized vehicles. Ability to define problems, repair or replace defective parts/equipment, and properly install new parts/ equipment. Ability to read and interpret complex electrical or electronic diagrams, schematics, blueprints and engineering drawings and plans. Skill in the use and care of tools and test equipment utilized in electrical/electronic repair and calibration. Ability to plan and install wiring, cabling and fiber optic systems as well as associated equipment required by the transportation management system communication network. Ability to demonstrate a positive, professional team-work style of work performance and attitude. Knowledge of or the ability to acquire knowledge of the methods and procedures of operation a central traffic signal computer system. A working knowledge in the use of computers and computer software. Ability to access and manipulate data using computers and engineering software. Knowledge of principles of traffic management and operations at the paraprofessional level.

**PHYSICAL DEMANDS:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential function of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to talk, hear and must be able to lift (50) or more pounds. The employee is frequently required to use hand to finger, handle or fell objects, tools or controls. The employee is routinely required to stand; walk; sit; reach with hands and arms; climb or balance; and stoop, kneel, crouch or crawl.

**WORK ENVIRONMENT:**

The work environment characteristics described here are representative of those an employee encounter while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee works both inside and outside and is exposed to adverse weather conditions. Work may be below ground, at ground level or above ground. Work may be performed in the proximity of construction.